



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

March 23, 2016

Maria Herrero  
Regulatory Manager  
Valent BioSciences Corporation  
870 Technology Way  
Libertyville, IL 60048

Subject: Non-PRIA (Pesticide Registration Improvement Act) Labeling Amendment – add fruit thinning of apple and pear, defoliation of fruit and nut trees and vine uses. Adding supplemental labeling for the above mentioned uses.  
Product Name: ProTone SG Plant Growth Regulator Soluble Granule  
EPA Registration Number: 73049-461  
Application Date: 23 October 2015  
OPP Decision Number: 510581

Dear Ms. Herrero:

The amended labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable.

This approval does not affect any terms or conditions that were previously imposed on this registration. You continue to be subject to existing terms or conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release this product for shipment with the new labeling. In accordance with 40 CFR § 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. “To distribute or sell” is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR § 152.3.

Should you wish to add/retain a reference to your company’s website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the U.S. Environmental Protection Agency (EPA). If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration

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process. Therefore, should the EPA find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA-approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions, please contact Cody Kendrick of my team by phone at (703) 347-0468 or via email at [kendrick.cody@epa.gov](mailto:kendrick.cody@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "For Andrew C. Bryceland". The signature is stylized and written over a light blue rectangular background.

Andrew C. Bryceland, Team Leader  
Biochemical Pesticides Branch  
Biopesticides and Pollution Prevention Division (7511P)  
Office of Pesticide Programs

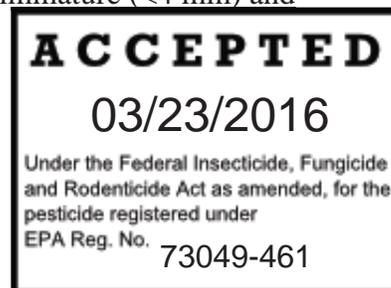
Enclosure

# MASTER LABEL

**Primary Product name: ProTone SG Plant Growth Regulator, Soluble Granule.**

Sublabel I: ProTone SG Plant Growth Regulator Soluble Granule. For use on grapes to enhance color development. For use on grapes, apples and pears for thinning, and for use on fruit and nut trees and vines for defoliation.

Sublabel II: ProTone FW Plant Growth Regulator Soluble Granule. For Application to coffee to suppress flower bud break from their latent dormancy of immature (<4 mm) and early mature (5 to 6 mm long) stages.



|                        |            |
|------------------------|------------|
| Active Ingredient      |            |
| S-Abcisic Acid .....   | 20.0% w/w  |
| Other Ingredients..... | 80.0% w/w  |
| Total.....             | 100.0% w/w |

ProTone® SG contains a total of 20 g of S-Abcisic acid (S-ABA) in 100 g of product. S-Abcisic acid, commonly known as S-ABA, is a growth regulator found in all plants.

## KEEP OUT OF REACH OF CHILDREN CAUTION

EPA Registration No. 73049-461  
EPA Establishment No. 33762-IA-001

Registrant: Valent BioSciences  
Corporation  
870 Technology Way  
Libertyville, IL 60048  
1-847-968-4700

Net Weight: 1.65 lb. (750 grams)  
This container will treat 0.4 acres when applied at the maximum label rate.

**SUB-LABEL I**

**ProTone® SG**

**Plant Growth Regulator  
SOLUBLE GRANULE**

**FOR USE ON  
GRAPES, FRUIT AND NUT CROPS (NURSERY AND ORCHARD TREES)**

Sublabel I: ProTone SG Plant Growth Regulator Soluble Granule. For use on grapes to enhance color development. For use on grapes, apples and pears for thinning, and for use on fruit and nut trees and vines for defoliation.

# ProTone® SG

## Plant Growth Regulator SOLUBLE GRANULE

### FOR USE ON GRAPES, FRUIT AND NUT CROPS (NURSERY AND ORCHARD TREES)

|                        |            |
|------------------------|------------|
| Active Ingredient      |            |
| S-Abscisic Acid .....  | 20.0% w/w  |
| Other Ingredients..... | 80.0% w/w  |
| Total.....             | 100.0% w/w |

ProTone® SG contains a total of 20 g of S-Abscisic acid (S-ABA) in 100 g of product. S-Abscisic acid, commonly known as S-ABA, is a growth regulator found in all plants.

### KEEP OUT OF REACH OF CHILDREN CAUTION

| <b>FIRST AID</b>   |   |
|--|---|
| If in eyes   | <ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul> |
| <b>HOT LINE NUMBER</b>   |   |
| Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also call toll-free 1-800-892-0099 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-847-968-4700. |   |

This label must be in the possession of the user at the time of pesticide application.

EPA Registration No. 73049-461  
EPA Establishment No. 33762-IA-001

Registrant: Valent BioSciences Corporation  
870 Technology Way  
Libertyville, IL 60048  
1-847-968-4700

Net Weight: 1.65 lb. (750 grams)  
This container will treat 0.4 acres when applied at the maximum label rate.

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS & DOMESTIC ANIMALS

**CAUTION:** Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

#### Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Chemical Resistant Gloves
- Shoes plus socks.
- Protective eyewear

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### User Safety Recommendations

Users should:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

### ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash-water or rinsate.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with the terms of the Label. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the state or tribal agency responsible for pesticide regulation.

## **AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Long-sleeved shirt and long pants (or Coveralls).
- Chemical resistant gloves (made of any waterproof material).
- Shoes plus socks.
- Protective eyewear.

## **GENERAL DIRECTIONS FOR USE**

- Use only as directed. Read the label thoroughly and make sure it is understood before making applications.
- Undesired effects can result from any deviations from the label directions in the rates, timings, water volumes, or the adoption of untested spray mixes, when applying ProTone® SG.
- To prepare the treatment solution, add the required amount of ProTone® SG to a spray tank about half-filled with water. Agitate while bringing the total volume of water to the required level. Mix thoroughly with agitation and bypass circulation to completely dissolve the ProTone® SG, and then add surfactant. Discard any unused treatment solution at the end of each day following local, state or federal law.
- Where recommended, use a non-ionic surfactant at the final adjuvant concentration directed by the adjuvant manufacturer.
- Do not apply ProTone® SG to plants or fruit under stress (e.g., heat, water, disease, insect and nutrient). Injured or stressed plants or fruit will show a reduced response to ProTone® SG.

- Do not overhead irrigate treated plants for at least 6 hours following application of ProTone® SG.
- Do not apply ProTone® SG if rain is expected within 6 hours of application.

## COMPATIBILITY WITH OTHER AGRICULTURAL PRODUCTS

Compatibility and performance data for ProTone® SG with other agricultural products is not available.

Do not tank mix ProTone® SG with compounds containing copper or iron ions for any use except defoliation. Do not tank mix ProTone® SG with any product unless compatibility has been verified. If considering tank mixing ProTone® SG with other products use the following **compatibility jar test** before mixing a whole tank:

Add water from the same water source to a clear glass or plastic jar. Add the pesticides in correct proportions. Mix thoroughly and let stand for a minimum 15 minutes. Separation, gelling, or generation of heat are all signs of incompatibility.

Even if a mix passes the jar test for compatibility, it is imperative to test it on a designated area to evaluate for phytotoxicity or ineffectiveness.

Always read and follow all label directions and precautions of each product. When using combinations of products the most restrictive of label limitations and precautions must be followed. Do not mix with any pesticide that has a prohibition against tank mixing. For further information consult your Valent Agricultural Specialist (1-800-6 VALENT).

## APPLICATIONS, RATES, AND TIMINGS

### ENHANCED COLORATION OF GRAPES:

S-ABA is known to accelerate and enhance the color development of grape berries depending on cultivar, vineyard conditions, and growing region. One or more of the following benefits is often associated with treatment with S-ABA: improved fruit quality as a result of enhanced fruit color, earlier harvest, improved harvest management, and improved pack-out yield.

| CROP   | OBJECTIVE / BENEFIT   | APPLICATION INSTRUCTIONS   |
|--|---|--|
| <p><b>Grapes</b><br/>(Table Grapes, Juice Grapes, Wine Grapes)</p>   | <p>Enhanced coloration of grapes.</p> <p>Contact Valent Agricultural Specialist for more information.</p> | <p>Apply ProTone® within the period from 1 week before veraison (50 percent of the target fruit has softened) until anticipated harvest of target fruit. Application timing varies depending on the cultivar, vineyard conditions, and grower objectives.</p> <p><b>Spray Applications:</b><br/>Apply 13.2 to 44.1 ounces (375 to 1,250 grams) of ProTone® SG per acre as a spray solution in a sufficient volume to achieve uniform and complete coverage of the grape bunches. In situations where greater color development is desired, use higher rates. Spray volumes ranging from 80 to 200 gallons/A have been shown to be effective when applied under slow drying conditions.</p> <p><u>Early timing:</u><br/>First application should be made between 1 week before veraison and 3 weeks after veraison. A single application made during this period has been shown to be effective to enhance grape berry color.</p> <p><u>Late timing:</u><br/>If additional color development is desired, up to three (3) applications of ProTone® SG can be used. Multiple applications are expected to improve color on cultivars for which there is an extended period between veraison and harvest</p> <p>Apply to marketable clusters with significant green color. Fruit may need to remain on the vine for 2 to 3 additional weeks for harvestable color to develop. Fruit must be firm at time of application with the potential to remain firm until harvest.</p> |
| <p><b>Use of Adjuvants:</b><br/>Use a non-ionic surfactant at the final surfactant concentration directed by the surfactant manufacturer to improve wetting and coverage of grape bunches.</p> |   |  |

### Additional Instructions:

- Optimal ProTone® SG rates will vary according to the desired color effect, growing conditions & practices, application technique, environmental conditions, variety &

cultivar, plant vigor, vine canopy and crop load. Different varieties or cultivars of the same species respond differently to ProTone® SG. For specific variety or cultivar information contact your Valent representative. With increasing temperature and lower humidity consider using the higher rates within the range given in the application rates, remembering not to apply to plants that are under stress.

- Increased coloration of grape berries has been achieved with bunch directed sprays applied by calibrated commercial spray equipment. Apply ProTone® SG in a sufficient amount of water to ensure uniform, thorough, but not excessive coverage of the grape bunches. Product efficacy requires that all bunches, and berries within bunches, receive thorough and complete coverage. Adjust spray volumes to achieve thorough coverage based on vine size, spacing, trellis system, vine canopy, and spray equipment.
- Best results will be achieved from applications during the cooler parts of the day or night, avoiding the hottest period of the day. To maximize absorption and optimize product effectiveness, apply ProTone® SG under slow drying conditions, e.g., early in the morning, in the evening or night (coolest daily temperatures, medium to high relative humidity, and no wind). Do not make applications during the day or early evening when the fruit is still hot.
- ProTone® SG has been shown to enhance the color of grape cultivars that have difficulty developing color and helps increase color of grapes grown in poor coloring areas. However, under very poor color development conditions (e.g., excessively hot day and night temperatures, heavy crop load, poor growing conditions) application of ProTone® SG does not always give adequate color development. Serious consideration is to be given, on a block-by-block basis, to any vineyard conditions (elevation, sun exposure, soil texture, growing condition, prevailing or anticipated weather patterns such as high temperature, drought or flood conditions, nutrient levels) or production practices (vine size, vine spacing, vine canopy, crop load, trellis system, pruning) that impact fruit color development.
- Under conditions where color development of grapes is good, (e.g., growing areas with a history of good color development, years in which there is good color development, cultivars that already develop sufficient color), application of ProTone® SG will not provide significant additional color or advance the harvest period.
- In most cases color development resulting from ProTone® application will be visible five to seven days after application.

**THINNING OF GRAPES, APPLES AND PEARS:**

| <b>CROP</b>   | <b>OBJECTIVE / BENEFIT</b>  | <b>APPLICATION INSTRUCTIONS</b>  |
|---|---|--|
| <b>Grapes*</b><br>(Table Grapes, Juice Grapes, Wine Grapes) | For decreased berry set, reduced hand-thinning costs, allow better air circulation to aid in the control of bunch rot, increase light penetration to aid in sugar development, and hastened maturity. | Apply 13.2 to 26.5 ounces (375 to 750 grams) of ProTone SG per acre per application. Make one to four applications from first bloom to berry set. When the bloom and set period is extended, subsequent applications can be made at 1 to 7 day intervals. Application timing varies depending on the cultivar, vineyard conditions, and grower objectives.<br>Use bunch directed sprays, or dips, that achieve thorough wetting of the fruiting zone. Bunches need to receive uniform and complete coverage, without significant runoff. The volume required will depend on the trellis system, the vine canopy size and management, and commercial spray equipment used. Volumes ranging from 80 – 200 gallons/A have been shown to be effective when applied under slow drying conditions. |
| <b>Apples, pears</b>  | For early season fruit thinning to selectively remove fruitlet from the tree in order to increase size and quality of retained fruit.   | Apply 6.6 to 33.1 ounces (188 to 938 grams) of ProTone SG per acre per application. These rates correspond with 100 to 500 ppm at 100 gal/A spray volume. Make 1-2 applications of ProTone SG when the average diameter of king fruitlets is between 5-20 mm. Direct 80% of the spray into the upper 2/3 of the tree canopy. Generally one application is sufficient for fruit thinning. If a second application is needed to achieve additional thinning: <ol style="list-style-type: none"> <li>1. Allow 7-10 days between applications to observe the effect of the first application.</li> <li>2. Make the second application no later than 20 mm average king bloom fruitlet diameter.</li> </ol>   |

**Additional Instructions:**

- Apply ProTone SG in the morning or evening when conditions are best for slow drying (cooler temperatures and higher humidity), in order to ensure adequate

absorption of the product. Avoid application over heavy dew as excessive run-off may occur.

- Use higher rates in well cross-pollinated orchards or on varieties that have a history of being difficult to thin.
- Product performs best at water pH 5 to 7; do not exceed pH 8.5.
- Apply in a sufficient amount of water to ensure thorough coverage without excessive run-off. In most cases, spray volumes of 100 gallons/A have been shown to be adequate. Use calibrated spray equipment to ensure uniform coverage of leaves and fruit. Adjust water volumes based on tree size and spacing.
- Temperatures and weather conditions during application and the following 2 – 3 days can affect product performance. For further information consult your Valent Agricultural Specialist (1-800-6 VALENT).

## DEFOLIATION OF FRUIT AND NUT TREES AND VINES

**Nursery operations** are challenged to completely defoliate trees prior to digging/lifting activities in the fall. S-ABA has been shown to hasten natural leaf senescence and abscission when applied as a foliar spray in combination with other defoliating materials before dormancy.

**In established orchards**, where the rapid onset of winter can interrupt the normal senescence and drop of leaves and the progression into dormancy, vigorous trees (particularly new plantings) can be damaged. The use of S-ABA can accelerate leaf abscission and prepare trees for dormancy when applied together with other defoliating materials.

| CROP   | OBJECTIVE / BENEFIT                                | APPLICATION INSTRUCTIONS  |
|--|--|---|
| Fruit and nut trees and vines (in the nursery)           | For acceleration of leaf senescence and abscission | <p>Make 1-2 foliar applications of ProTone SG in combination with other defoliating materials in late fall before the onset of dormancy when defoliation is required. Allow 7-14 days between applications to observe the effect of the first application.</p> <p><b>Application rates:</b><br/>Apply 16.5 to 66.1 ounces (469 to 1,875 grams) of ProTone® SG per acre per application. These rates correspond with 250 to 1,000 ppm at 100 gal/A spray volume. Use higher rates on varieties that are typically difficult to defoliate with standard methods. Spray volumes ranging from 50 – 200 gallons/A can be used.</p> |
| Fruit and nut trees and vines (under orchard conditions) | For acceleration of leaf senescence and abscission | Make 1-2 foliar applications of ProTone SG in combination with other defoliating materials in late fall before the onset of dormancy when defoliation is required. Allow 7-14 days  |

|  |  |  |
|--|--|--|
|  |  | <p>between applications to observe the effect of the first application.</p> <p><b>Application rates:</b><br/>Apply 16.5 to 66.1 ounces (469 to 1,875 grams of ProTone® SG per acre per application. These rates correspond with 250 to 1,000 ppm at 100 gal/A spray volume. Use higher rates on varieties that are typically difficult to defoliate with standard methods. Spray volumes ranging from 100 – 200 gallons/A have been shown to be effective.</p> |
|--|--|--|

### Additional Instructions:

- ProTone SG has been shown to improve the effectiveness of other defoliating agents when applied in a tank mix.
- Apply in a sufficient amount of water to ensure thorough coverage without excessive run-off. Use calibrated spray equipment to ensure uniform coverage of leaves. Adjust water volumes based on tree size and spacing. Hydraulic sprayers equipped with drop nozzles are recommended for use in nursery defoliation.
- Addition of surfactants has been shown to improve defoliation.
- For further information consult your Valent Agricultural Specialist (1-800-6 VALENT)

### CONVERSION TABLE

| Ounces of ProTone® SG | Grams of ProTone® SG | Grams of S-ABA | ppm concentration of S-ABA (at 100 gal/A spray volume) |
|-----------------------|----------------------|----------------|--|
| 6.6                   | 188                  | 38             | 100  |
| 13.2                  | 375                  | 75             | 200  |
| 16.5                  | 469                  | 94             | 250  |
| 19.8                  | 564                  | 114            | 300  |
| 26.5                  | 750                  | 150            | 400  |
| 33.1                  | 938                  | 188            | 500  |
| 35.3                  | 1000                 | 200            | 533  |
| 44.1                  | 1250                 | 250            | 667  |
| 52.9                  | 1500                 | 300            | 800  |
| 66.1                  | 1875                 | 375            | 1,000  |

## **CHEMIGATION**

Apply this product only through the following systems:

- 1) Drip Irrigation, such as micro-irrigation with spaghetti-tube or drip emitters.

Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

## **CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS**

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Chemigation systems connected to public water systems must contain a functional, reduced pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

## **DRIP - IRRIGATION**

The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Fill the supply tank with the desired amount of water. Then add the amount of ProTone® SG required in order to achieve the selected final use solution rate. Agitate the mixture of ProTone® SG frequently during the chemigation period to assure a uniform distribution throughout the system.

Apply ProTone® SG within the last 30 to 40 minutes of the water application but do not exceed maximum rates and volumes.

## **STORAGE AND DISPOSAL**

Do not contaminate water, food or feed by storage or disposal.

### Pesticide Storage

Keep container tightly closed when not in use. Store product in a cool and dry place. Avoid extended storage conditions at temperatures above 25°C (77°F). Avoid exposure of product to light.

### Pesticide Disposal

To avoid waste, use all material in this container by application according to label directions. If waste cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

### Container Handling

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available or puncture and dispose of the container in a sanitary landfill, or by other procedures approved by state and local authorities.

### **Warranty and Disclaimer Statement:**

To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

Valent BioSciences Corp. ©2015

**SUB-LABEL II**

**ProTone® FW**

**Plant Growth Regulator  
SOLUBLE GRANULE**

**FOR USE ON  
Coffee**

Sublabel II: ProTone FW Plant Growth Regulator Soluble Granule. For Application to coffee to suppress flower bud break from their latent dormancy of immature (<4 mm) and early mature (5 to 6 mm long) stages.

# ProTone® FW

## Plant Growth Regulator SOLUBLE GRANULE

### FOR USE ON COFFEE

|                        |            |
|------------------------|------------|
| Active Ingredient      |            |
| S-Abscisic Acid .....  | 20.0% w/w  |
| Other Ingredients..... | 80.0% w/w  |
| Total.....             | 100.0% w/w |

ProTone® FW contains a total of 20 g of S-Abscisic acid (S-ABA) in 100 g of product. S-Abscisic acid, commonly known as S-ABA, is a growth regulator found in all plants.

## KEEP OUT OF REACH OF CHILDREN CAUTION

| FIRST AID  |   |
|--|---|
| If in eyes   | <ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul> |
| HOT LINE NUMBER  |   |
| Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also call toll-free 1-800-892-0099 (24 hours) for emergency medical treatment and/or transport emergency information. For all other information, call 1-847-968-4700. |   |

This label must be in the possession of the user at the time of pesticide application.

EPA Registration No. 73049-461  
EPA Establishment No. 33762-IA-001

Registrant: Valent BioSciences  
Corporation  
870 Technology Way  
Libertyville, IL 60048  
1-847-968-4700

Net Weight: 1.65 lb. (750 grams)

This container will treat 0.6 acres when applied at the maximum label rate.

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS & DOMESTIC ANIMALS

**CAUTION:** Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

#### Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants.
- Chemical Resistant Gloves
- Shoes plus socks.
- Protective eyewear

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

#### User Safety Recommendations

Users should:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. As soon as possible, wash thoroughly and change into clean clothing.

### ENVIRONMENTAL HAZARDS

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash-water or rinsate.

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with the terms of the Label. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

## **AGRICULTURAL USE REQUIREMENTS**

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 4 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- Long-sleeved shirt and long pants (or Coveralls).
- Chemical resistant gloves (made of any waterproof material).
- Shoes plus socks.
- Protective eyewear.

## **GENERAL DIRECTIONS FOR USE**

Use only as directed. Read the label thoroughly and make sure it is understood before making applications.

### **Application instructions:**

- Undesired effects can result from any deviations from the label directions in the rates, timings, water volumes, or the adoption of untested spray mixes, when applying ProTone® FW.
- To prepare the treatment solution, add the required amount ProTone® FW to a spray tank about half-filled with water. Agitate while bringing the total volume of water to the required level. Mix thoroughly with agitation and bypass circulation to completely dissolve the ProTone® FW, and then add surfactant. Discard any unused treatment solution at the end of each day following local, state or federal law.

- Use a non-ionic surfactant at the final adjuvant concentration directed by the adjuvant manufacturer. Use of an adjuvant will improve wetting and coverage of the coffee berries.
- Apply ProTone® FW in a sufficient amount of water to ensure uniform, thorough, but not excessive coverage. Adjust spray volumes to achieve thorough coverage based on tree size, spacing, canopy, and spray equipment.
- Best results will be achieved from applications during the cooler parts of the day or night, avoiding the hottest period of the day. To maximize absorption and optimize product effectiveness, apply ProTone® FW under slow drying conditions, e.g. early in the morning, in the evening or night (coolest daily temperatures, medium to high relative humidity, and no wind). Do not make applications during the day or early evening when the fruit is still hot.
- Do not apply ProTone® FW to plants or fruit under stress (e.g. heat, water, disease, insect and nutrient). Injured or stressed plants or fruit will show a reduced response to ProTone® FW.
- Do not overhead irrigate treated plants for at least 6 hours following application of ProTone® FW.
- Do not apply ProTone® FW if rain is expected within 6 hours of application.
- The proper application timing of ProTone® FW is important to product performance. When applying ProTone® FW, deviations from the label directions in the rates, timings, water volumes, or the use of untested spray mixes, may produce undesired results.

## COMPATIBILITY WITH OTHER AGRICULTURAL PRODUCTS

Compatibility and performance data for ProTone® FW with other agricultural products is not available.

Do not tank mix ProTone® FW with compounds containing copper or iron ions. Do not tank mix ProTone® FW with any product unless compatibility has been verified. If considering tank mixing ProTone® FW with other products use the following **compatibility jar test** before mixing a whole tank:

Add water from the same water source to a clear glass or plastic jar. Add the pesticides in correct proportions. Mix thoroughly and let stand for a minimum 15 minutes. Separation, gelling, or generation of heat are all signs of incompatibility.

Even if a mix passes the jar test for compatibility, it is imperative to test it on a designated area to evaluate for phytotoxicity or ineffectiveness.

Always read and follow all label directions and precautions of each product. When using combinations of products the most restrictive of label limitations and precautions must be

followed. Do not mix with any pesticide that has a prohibition against tank mixing. For further information consult your Valent Agricultural Specialist.

**APPLICATIONS, RATES, AND TIMINGS**

| CROP   | DOSE  | OBSERVATIONS  |
|--------|---|---|
| Coffee | 40 to 400 grams A.I.<br>(200 to 2000 grams product)       | To suppress flower bud break from their latent dormancy of immature (<4 mm) and early mature (5 to 6 mm long) stages<br><br><b>FOLIAR APPLICATIONS</b><br>Applied in sufficient water volume to assure total coverage of developing buds along all laterals (arrange nozzles for coverage from bottom up as well as top down of laterals and leaves)<br>Multiple applications at 3 to 7 day frequency may be required over a period of 14 to 40 days. Begin applications when developing buds are at the <4 mm length stage and prior to the beginning of the rainfall period.<br>Use a non-ionic surfactant at 0.05% v/v |
|        | 0.5 to 2 grams A.I. / Liter<br>(2.5 to 10 grams product)  | <b>SOIL APPLICATIONS:</b><br><u>Hand applied method:</u><br>Apply 1 liter of mix solution per tree, evenly distributed within the tree drip line. Multiple applications at 3 to 7 day frequency may be required over a period of 14 to 40 days. Begin applications when developing buds are at the <4 mm length stage and prior to the beginning of the rainfall period.  |
|        | 500 to 2000 grams A.I.<br>(2,500 to 10,000 grams product) | <u>Irrigation Drip Line Injection method:</u><br>Inject ProTone® FW within the last 30 to 40 minutes of the irrigation run, utilize the 500 PPM dose. Multiple applications at 3 to 7 day frequency may be required over a period of 14 to 40 days. Begin applications when developing buds are at the <4 mm length stage and prior to the beginning of the rainfall period.  |

**CONVERSION TABLE:**

| Grams of S-ABA | Pounds of ProTone® FW | Grams of ProTone® FW |
|----------------|-----------------------|----------------------|
| 75             | 0.83                  | 375                  |
| 100            | 1.10                  | 500                  |
| 125            | 1.38                  | 625                  |
| 150            | 1.65                  | 750                  |
| 175            | 1.93                  | 875                  |
| 200            | 2.20                  | 1000                 |
| 225            | 2.48                  | 1125                 |
| 250            | 2.76                  | 1250                 |

## **CHEMIGATION**

Apply this product only through the following systems:

- 1) Drip Irrigation, such as micro-irrigation with spaghetti-tube or drip emitters.

Do not apply this product through any other type of irrigation system. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

## **CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS**

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Chemigation systems connected to public water systems must contain a functional, reduced pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

## **DRIP - IRRIGATION**

The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.

The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Fill the supply tank with the desired amount of water. Then add the amount of ProTone® FW required in order to achieve the selected final use solution rate. Agitate the mixture of ProTone® FW frequently during the chemigation period to assure a uniform distribution throughout the system.

Apply ProTone® FW within the last 30 to 40 minutes of the water application but do not exceed maximum rates and volumes.

## **STORAGE AND DISPOSAL**

Do not contaminate water, food or feed by storage or disposal.

### Pesticide Storage

Keep container tightly closed when not in use. Store product in a cool and dry place. Avoid extended storage conditions at temperatures above 25°C (77°F). Avoid exposure of product to light.

### Pesticide Disposal

To avoid waste, use all material in this container by application according to label directions. If waste cannot be avoided, offer remaining product to a waste disposal facility or pesticide disposal program (often such programs are run by state or local governments or by industry).

### Container Handling

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available or puncture and dispose of the container in a sanitary landfill, or by other procedures approved by state and local authorities.

### **Warranty and Disclaimer Statement:**

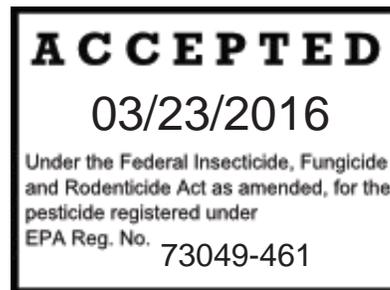
To the extent consistent with applicable law, seller makes no warranty, express or implied, of merchantability, fitness or otherwise concerning use of this product other than as indicated on the label. User assumes all risks of use, storage or handling not in strict accordance with accompanying directions.

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# Supplemental Label



EPA Reg. No. 73049-461



## PROTONE SG FOR USE IN WASHINGTON STATE ONLY

### PROTONE SG FOR USE ON APPLE & PEAR

#### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**THIS LABELING MUST BE IN THE POSSESSION OF THE USER AT THE TIME OF APPLICATION. READ THE LABEL AFFIXED TO THE CONTAINER FOR PROTONE SG BEFORE APPLYING. USE OF PROTONE SG ACCORDING TO THIS LABELING IS SUBJECT TO THE USE PRECAUTIONS AND LIMITATIONS IMPOSED BY THE LABEL AFFIXED TO THE CONTAINER FOR PROTONE SG.**

DATE OF EXPIRATION OF PRESENT SUPPLEMENTAL LABEL: OCTOBER 23, 2018

#### FOR USE ON APPLE & PEAR

#### APPLICATIONS, RATES, AND TIMINGS

| USE   | APPLICATION RATE  | APPLICATION METHOD AND TIMING   |
|---|---|---|
| For early season fruit thinning to selectively remove fruitlet from the tree in order to increase size and quality of retained fruit. | Apply <b>6.6 to 33.1 ounces</b> (188 to 938 grams) of ProTone SG per acre per application. These rates correspond with 100 to 500 ppm at 100 gal/A spray volume.<br><br>Use higher rates in well cross-pollinated orchards or varieties that have a history of being difficult to thin. | Make 1-2 applications of ProTone SG when the average diameter of king fruitlets is between 5-20 mm.<br><br>Generally, one application is sufficient for fruit thinning. If a second application is needed to achieve additional thinning:<br><ol style="list-style-type: none"><li>1. Allow 7 – 10 days between applications to observe the effect of the first application.</li><li>2. Make the second application no later than 20 mm average king bloom fruitlet diameter.</li></ol> |

#### Additional Instructions:

- Direct 80% of the spray into the upper 2/3 of the tree canopy
- Apply ProTone SG in the morning or evening when conditions are best for slow drying (cooler temperatures and higher humidity), in order to ensure adequate absorption of the product. Avoid application over heavy dew as excessive run-off may occur.
- Product performs best at water pH between 5-7; do not exceed pH of 8.5.
- Apply in a sufficient amount of water to ensure thorough coverage without excessive run-off. Use calibrated spray equipment to ensure uniform coverage of leaves and fruit. Adjust water volumes based on tree size and spacing. In many cases, spray volumes of approximately 100 gallons per acre have been shown to be adequate.
- Temperatures and weather conditions during application and the following 2 – 3 days can affect product performance. For further information consult your Valent Agricultural Specialist (1-800-6 VALENT)

**ProTone SG Conversion Table:**

| <b>Grams of ProTone® SG</b> | <b>Ounces of ProTone® SG</b> | <b>Grams of S-ABA</b> | <b>ppm concentration of S-ABA (at 100 gal/A spray volume)</b> |
|-----------------------------|------------------------------|-----------------------|---|
| 188                         | 6.6                          | 38                    | 100   |
| 375                         | 13.2                         | 75                    | 200   |
| 564                         | 19.8                         | 114                   | 300   |
| 750                         | 26.5                         | 150                   | 400   |
| 938                         | 33.1                         | 188                   | 500   |

**PLEASE CONTACT VALENT U.S.A. CORPORATION AT 800-6-VALENT (682-5368) TO DETERMINE IF THIS USE IS REGISTERED IN YOUR STATE.**

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Made in U.S.A.  
Form: 01262015-PRT-001  
10/23/2015

# Supplemental Label



EPA Reg. No. 73049-461

**ACCEPTED**

03/23/2016

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under

EPA Reg. No. 73049-461

**PROTONE SG FOR USE IN THE FOLLOWING STATES ONLY: DE, OR, NY, WA.**

**PROTONE SG FOR USE FOR DEFOLIATION OF FRUIT AND NUT TREES AND VINES**

### DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

**THIS LABELING MUST BE IN THE POSSESSION OF THE USER AT THE TIME OF APPLICATION. READ THE LABEL AFFIXED TO THE CONTAINER FOR PROTONE SG BEFORE APPLYING. USE OF PROTONE SG ACCORDING TO THIS LABELING IS SUBJECT TO THE USE PRECAUTIONS AND LIMITATIONS IMPOSED BY THE LABEL AFFIXED TO THE CONTAINER FOR PROTONE SG.**

DATE OF EXPIRATION OF PRESENT SUPPLEMENTAL LABEL: OCTOBER 23, 2018

### FOR USE ON FRUIT AND NUT TREES AND VINES

#### APPLICATIONS, RATES, AND TIMINGS

| CROP   | OBJECTIVE / BENEFIT                                | APPLICATION INSTRUCTIONS   |
|--|--|--|
| <b>Fruit and nut trees and vines</b><br>(in the nursery)           | For acceleration of leaf senescence and abscission | Make 1-2 foliar applications of ProTone SG in combination with other defoliating materials in late fall before the onset of dormancy when defoliation is required. Allow 7-14 days between applications to observe the effect of the first application.<br><br><b>Application rates:</b><br>Apply <b>16.5 to 66.1 ounces</b> (469 to 1,875 grams) of ProTone® SG per acre per application. These rates correspond with 250 to 1,000 ppm at 100 gal/A spray volume. Use higher rates on varieties that are typically difficult to defoliate with standard methods. Spray volumes ranging from 50 – 200 gallons/A can be used. |
| <b>Fruit and nut trees and vines</b><br>(under orchard conditions) | For acceleration of leaf senescence and abscission | Make 1-2 foliar applications of ProTone SG in combination with other defoliating materials in late fall before the onset of dormancy when defoliation is required. Allow 7-14 days between applications to observe the effect of the first application.<br><br><b>Application rates:</b><br>Apply 469 to 1,875 grams of ProTone® SG per acre per application. These rates correspond with 250 to 1,000 ppm at 100 gal/A spray volume. Use higher rates on varieties that are typically difficult to defoliate with standard methods. Spray volumes ranging from 100 – 200 gallons/A have been shown to be effective.         |

**Additional Instructions:**

- ProTone SG has been shown to improve the effectiveness of other defoliating agents when applied in a tank mix.
- Apply in a sufficient amount of water to ensure thorough coverage without excessive run-off. Use calibrated spray equipment to ensure uniform coverage of leaves. Adjust water volumes based on tree size and spacing. Hydraulic sprayers equipped with drop nozzles are recommended for use in nursery defoliation.
- Addition of surfactants has been shown to improve defoliation.
- For further information consult your Valent Agricultural Specialist (1-800-6 VALENT)

**ProTone SG Conversion Table:**

| <b>Grams of ProTone® SG</b> | <b>Ounces of ProTone® SG</b> | <b>Grams of S-ABA</b> | <b>ppm concentration of S-ABA (at 100 gal/A spray volume)</b> |
|-----------------------------|------------------------------|-----------------------|---|
| 469                         | 16.5                         | 94                    | 250   |
| 564                         | 19.8                         | 114                   | 300   |
| 750                         | 26.5                         | 150                   | 400   |
| 938                         | 33.1                         | 188                   | 500   |
| 1,000                       | 35.3                         | 200                   | 533   |
| 1,250                       | 44.1                         | 250                   | 667   |
| 1,500                       | 52.9                         | 300                   | 800   |
| 1,875                       | 66.1                         | 375                   | 1,000   |

**PLEASE CONTACT VALENT U.S.A. CORPORATION AT 800-6-VALENT (682-5368) TO DETERMINE IF THIS USE IS REGISTERED IN YOUR STATE.**

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